

## SYSTEM:OS - DIALOG OneSearch

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File 5:Biosis Previews(R) 1969-2005/Apr W2  
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\*File 105: This file is closed (no updates)

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File 34:SciSearch(R) Cited Ref Sci 1990-2005/Apr W1  
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File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec  
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File 292:GEOBASE(TM) 1980-2005/Feb B2  
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File 89:GeoRef 1785-2005/Mar B2  
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\*File 89: Please see HELP ALERTALL for new Alert frequency and price. Please see HELP RATES 89 for new Academic Subscriber rates.

File 65:Inside Conferences 1993-2005/Apr W2  
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File 350:Derwent WPIX 1963-2005/UD,UM &UP=200523  
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\*File 350: For more current information, include File 331 in your search. Enter HELP NEWS 331 for details.

File 347:JAPIO Nov 1976-2004/Dec(Updated 050405)  
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\*File 347: JAPIO data problems with year 2000 records are now fixed. Alerts have been run. See HELP NEWS 347 for details.

Set	Items	Description
S1	1824352	MRI OR MAGNETIC(1W) (IMAG? OR IMAGING) OR MAGNETIC(W) RESONAN? OR NMR OR NUCLEAR()MAGNETIC()RESONANCE OR FTNMR OR FTMRI - OR MAGNETORESONANCE OR PMR OR PROTON(W)MAGNETIC(W) RESONAN? OR MR() (IMAGE? OR IMAGING)
S2	43347	MC=(S01-E02A2 OR S03-E07A OR S01-E02A8A OR S01-E02A1 OR S03-E07C OR S05-D02B1 OR S03-C02F1) OR IC=(G01R-003 OR G01N-024-/08 OR G01V-003/A75) OR CC=(A0758 OR A8760I OR B7510N)
S3	1838699	S1:S2
S4	323074	BOREHOLE? OR BORE(W) (LOG OR LOGS OR LOGGING? OR HOLE?) OR - BORELOG? OR WELLBORE? OR WELL(W) (BORE? OR LOG OR LOGS OR LOGGING?) OR WELLLOG? OR DOWNHOLE? ? OR DOWN()HOLE? ?
S5	817387	LOGGING? OR DRILL??????? OR MC=(X25-E02? OR S03-C02) OR CC-=A9385
S6	955542	S4:S5
S7	81881	FORMAT? (2N) (LIQUID? ? OR FLUID? ? OR AQUA OR AQUEOUS OR AQUAE OR AQUAS OR H2O OR WATER??)
S8	4296	IC=(E21B-049/00 OR E21B-049/08 OR E21B-049/10)
S9	174592	(EARTH?? OR GROUND?? OR ROCK? ? OR STONE? ? OR GEOLOGIC?) (-3N) FORM????????
S10	187716	(EARTH?? OR GROUND?? OR ROCK? ? OR STONE? ? OR GEOLOGIC? OR SUBTERRAN? OR UNDERGROUND? OR UNDER()GROUND?) (3N) FORM????????
S11	210795	(BENEATH OR UNDER OR BELOW) (3N) (EARTH? OR GROUND? OR SURFACE?)
S12	396074	S9:S11
S13	21338	RELATIV? (2N) (PERMEABIL? OR PERMEABL?)
S14	23583	LOGGING() (WHILE OR DURING) () DRILLING OR LWD OR LDD OR MDD
S15	199948	FLOW() MEASUR? OR MWD OR MRWD OR ((MONITOR????? OR MEASUR??-?????? OR TEST????????? OR CHECK????? OR EXAMIN????? OR DETECT?-???????? OR SENS?????????) (3N) DRILL??????) OR FLOWRATE OR FLOWMETER? ? OR MEASUR? () WHILE() DRILL?
S16	220492	S14:S15
S17	683540	(MONITOR? OR MEASUR? OR TEST? OR CHECK? OR EXAMIN? OR ANALYS? OR ANALYZ? OR VERIF? OR IDENTIF? OR DETECT? OR SENSE? OR - SENSING? OR INSPECT? OR ESTIMAT? OR QUANTIF? OR QUANTITAT? OR CALCULAT?) (2N) DEVICE? ?
S18	79928	POLARIZ? AGENT? ? OR ENHANS? OR HYPERPOLARIZ? OR HYPER()POLARIZ?
S19	81765	OVERHAUSER(2N) EFFECT OR OE OR NUCLEAR() OVERHAUSER() EFFECT - OR NOE
S20	76296	OPTICAL? (2N) PUMP?
S21	120141	CARBON() 13 OR 13() C
S22	7746	S3 AND S6
S23	326	S22 AND S7
S24	88	S23 AND S9
S25	88	S24 AND S10
S26	14	S25 AND S8
S27	14	RD (unique items)
S28	74	S24 NOT S26
S29	0	S28 AND S8
S30	74	S28 AND S12
S31	0	S30 AND S13
S32	11	S30 AND S16
S33	11	RD (unique items)
S34	63	S30 NOT S32
S35	2	S34 AND S17
S36	2	RD (unique items)

S37 61 S34 NOT S35  
 S38 0 S37 AND S18  
 S39 0 S37 AND S19  
 S40 0 S37 AND S20  
 S41 1 S37 AND S21  
 S42 222804 (INCREAS? OR INTENSIF? OR AMPLIF? OR ENLARG? OR EXPAND? OR  
 ESCALAT? OR BOOST?) (2N) (NMR OR NUCLEAR()MAGNETIC() RESONANCE -  
 OR SIGNAL? ? OR AMPLITUD?)  
 S43 55077 SIGNAL? (2N)AMPLITUD?  
 S44 271683 S42:S43  
 S45 3 S37 AND S44  
 S46 3 RD (unique items)  
 S47 16308 S3 AND S44  
 S48 43 S47 AND S18  
 S49 1 S48 AND S19  
 S50 42 S48 NOT S49  
 S51 2 S50 AND S12  
 S52 1 RD (unique items)  
 S53 40 S50 NOT S51  
 S54 7 S53 AND S20  
 S55 6 RD (unique items)  
 S56 33 S53 NOT S54  
 S57 1 S56 AND S21  
 S58 32 S56 NOT S57  
 S59 0 S58 AND S16  
 S60 0 S58 AND S17  
 S61 0 S58 AND S16  
 S62 0 S58 AND S6  
 S63 11 RD S32 (unique items)  
 S64 40 S19 AND S18  
 S65 0 S64 AND S12  
 S66 0 S64 AND S16  
 S67 0 S64 AND S16  
 S68 26 S64 AND S3  
 S69 20 RD (unique items)  
 S70 0 S69 AND S7  
 S71 20 RD S69 (unique items)  
 S72 420 S13 AND S16  
 S73 420 S72 AND S16  
 S74 0 S73 AND S18  
 S75 0 S73 AND S19  
 S76 0 S73 AND S20  
 S77 12 S73 AND S12  
 S78 12 RD (unique items)  
 S79 91 S21 AND S20  
 S80 1 S79 AND S19  
 S81 90 S79 NOT S80  
 S82 1 S81 AND S18  
 S83 1875 S3 AND S18  
 S84 26 S83 AND S19  
 S85 0 S84 NOT S68  
 S86 0 S83 AND S8  
 S87 0 S83 AND S6  
 S88 19 S83 AND S16  
 S89 10 RD (unique items)

Query/Command : HIS

File : PLUSPAT

## SS Results

1	28	(1) ..FAM US20040119471/PN
2	1	..CITF US20040119471/PN
3	1	..CITB US20040119471/PN
4	28	(1) ..FAM US6609568/PN
5	3	..CITF US6609568/PN
6	9	..CITB US6609568/PN
7	28	(1) ..FAM US20040055745/PN
8	1	..CITF US20040055745/PN
9	1	..CITB US20040055745/PN

Search statement 10

10/696,996Family  
citation / search

## Refine Search

### Search Results -

Term	Documents
OVERHAUSER	1253
OVERHAUSERS	0
EFFECT	3509092
EFFECTS	1358837
((OVERHAUSER ADJ EFFECT) AND 1).PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD.	6
(L1 AND (OVERHAUSER ADJ EFFECT) ).PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD.	6

Database:

US Pre-Grant Publication Full-Text Database  
 US Patents Full-Text Database  
 US OCR Full-Text Database  
 EPO Abstracts Database  
 JPO Abstracts Database  
 Derwent World Patents Index  
 IBM Technical Disclosure Bulletins

Search:

L2

Refine Search

Recall Text



Clear

Interrupt

### Search History

DATE: Wednesday, April 13, 2005   [Printable Copy](#)   [Create Case](#)

**Set Name**   **Query**

side by side

**Hit Count**   **Set Name**

result set

DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=ADJ

<u>L2</u>	L1 and (overhauser adj effect)	6	<u>L2</u>
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<u>L1</u>	(earth adj formation) and (magnetic adj resonance)	555	<u>L1</u>
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END OF SEARCH HISTORY

## Refine Search

### Search Results -

Term	Documents
OVERHAUSER	1253
OVERHAUSERS	0
EFFECT	3509092
EFFECTS	1358837
((OVERHAUSER ADJ EFFECT) AND 1).PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD.	6
(L1 AND (OVERHAUSER ADJ EFFECT) ).PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD.	6

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Search:






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Set Name   Query

side by side

Hit Count   Set Name

result set

DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=ADJ

L2    L1 and (overhauser adj effect)    6    L2

L1    (earth adj formation) and (magnetic adj resonance)    555    L1

END OF SEARCH HISTORY

## Refine Search

### Search Results -

Term	Documents
EARTH	603803
EARTHS	20496
GEOLOGICAL	15948
GEOLOGICALS	1
FORMATION	1867134
FORMATIONS	100978
(7 AND ((GEOLOGICAL OR EARTH) ADJ FORMATION)).PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD.	8
(L7 AND ((EARTH OR GEOLOGICAL) ADJ FORMATION) ).PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD.	8

Database:

US Pre-Grant Publication Full-Text Database  
 US Patents Full-Text Database  
 US OCR Full-Text Database  
 EPO Abstracts Database  
 JPO Abstracts Database  
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Search:

L8

Refine Search

Recall Text

Clear

Interrupt

### Search History

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#### Set Name Query

side by side

#### Hit Count Set Name

result set

DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=ADJ

<u>L8</u>	L7 and ((earth or Geological) adj formation)	8	<u>L8</u>
<u>L7</u>	L6 and ((magnetic adj resonance) or MRI or NMR)	817	<u>L7</u>
<u>L6</u>	(overhauser adj effect)	837	<u>L6</u>
<u>L5</u>	L3 and (overhouser)	1	<u>L5</u>
<u>L4</u>	L3 and (overhouser adj effect)	1	<u>L4</u>

<u>L3</u>	((earth or geological)adj formation) and (magnetic adj resonance)	669	<u>L3</u>
<u>L2</u>	L1 and (overhauser adj effect)	6	<u>L2</u>
<u>L1</u>	(earth adj formation) and (magnetic adj resonance)	555	<u>L1</u>

END OF SEARCH HISTORY



field is being generated, irradiating said earth formation with a radio frequency radiation that is preferentially absorbed by electrons in free radicals of said hydrocarbon molecules in said weak polarizing field to enhance polarization of protons of hydrocarbon molecules within said earth formation, said irradiating field being aligned substantially normal to said weak polarizing magnetic field, (e) interrupting both said weak polarizing magnetic field and said irradiating magnetic field to initiate precession of protons polarized by said polarizing and enhancing fields, (d) and detecting signals induced by said precessing protons of said hydrocarbon molecules precessing in the earth's magnetic field. 3. A nuclear magnetism well logging method for identifying the presence of hydrocarbon molecules in an earth formation from within a well bore penetrating said earth formation comprising the steps of: 30 (a) establishing within said earth formation a weak polarizing magnetic field having at least a component thereof perpendicular to the earth's magnetic field, said polarizing field being of the order of about 5 gauss at the interface between said well bore and said earth formation (b) simultaneously establishing a radio frequency irradiation within said well bore and earth formation, said irradiation frequency being within the range of 2 to 30 megacycles, 40 (c) interrupting said polarizing magnetic field and said irradiating magnetic field to initiate precession of polarized protons in the earth's magnetic field, (d) and detecting signals induced by said precessing protons of said hydrocarbon molecules in the earth's magnetic field. References Cited by the Examiner UNITED STATES PATENTS 2,999,204 9/1961 Jones et al - 324 0.5 50 3,096,476 7/1963 Poindexter et al - 324-0.5 FOREIGN PATENTS 1,141, 373 3/1957 France. 1,221, 637 1/1960 France. 55 CHESTER L. JUSTUS, Primary Examiner. MAYNARD R. WILBUR, Assistant Examiner.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KMC	Draw D.
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Clear	Generate Collection	Print	Fwd Refs	Bkwd Refs	Generate OACS
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Term	Documents
EARTH	603803
EARTHS	20496
GEOLOGICAL	15948
GEOLOGICALS	1
FORMATION	1867134
FORMATIONS	100978
(7 AND ((GEOLOGICAL OR EARTH) ADJ FORMATION)).PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD.	8
(L7 AND ((EARTH OR GEOLOGICAL) ADJ FORMATION)).PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD.	8

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